

REMARKS

The Amendments

Claim 1 is amended to replace the recitation of formula I with the narrower formulae I-1, I-3 and I-4. In these formulae, the CF₂O or OCF₂ group is bonded to a cyclohexane ring. Support for the amendment is found in the specification, for example, at page 4, lines 28-30, and page 12, lines 6-34. The claims are further amended to address the 35 U.S.C. § 112 rejection and otherwise attend to formal matters. These latter amendments do not narrow the scope of the claims.

To the extent that the amendments avoid the prior art or for other reasons related to patentability, competitors are warned that the amendments are not intended to and do not limit the scope of equivalents which may be asserted on subject matter outside the literal scope of any patented claims but not anticipated or rendered obvious by the prior art or otherwise unpatentable to applicants. Applicants reserve the right to file one or more continuing and/or divisional applications directed to any subject matter disclosed in the application which has been canceled by any of the above amendments.

The Rejection Under 35 U.S.C. § 112, Paragraph

The above amendments are believed to overcome the 35 U.S.C. § 112, second paragraph, rejection. Claim 1 now makes clear that components C and D are optional. Claims 5 and 6, however, require each, respectively. Claim 10 is clarified in that "Z" was a typographical error for "2". The R²¹ definitions are recited in the appropriate claims. Claim 12 is replaced with new claims, whereby the indefinite language is removed. It is urged that the rejection be withdrawn.

The Rejection Under 35 U.S.C. § 102

The rejection of claims 1-3 and 5-14 under 35 U.S.C. § 102, as being anticipated by Andou (WO 97/36847 or U.S. Patent Nos. 6,190,576 or 6,319,570) is respectfully traversed.

It would appear that all three Andou references contain essentially the same disclosure since US '570 is a continuation of US '576 and both derive from the PCT application. Reference here will be made to the US '576 patent.

Andou provides a very broad generic disclosure of liquid crystalline compounds of the formula (I). The formula, without specificity, mentions as optional that the rings in the compound may be fluorinated. It is also optional, among other possibilities to have a CF₂O or OCF₂ bridging group. Of the 217 subgeneric formulae recited in Andou at cols. 13-38, it appears that only one (Andou formulae (1-12)) encompasses the possibility of a compound having a 2,3-difluoro-substituted phenyl group on the right side terminal and at the left side terminal a cyclohexylene ring linked by a CF₂O or OCF₂ linking group. Compare applicants formulae I in amended claim 1. Further, Andou discloses a long table depicting 691 compounds. It would appear that only two of these compounds fall within the (1-12) subgeneric formula of Andou, i.e., Compounds ^{369 370}379 and 380 at col. 171-172.

However, despite such remote disclosure, Andou fails to disclose any composition which contains a compound meeting any of applicants' formulae I-1, I-3 or I-4 and at least one other liquid crystal component, such as applicants' component B. All of the compounds in Andou's composition examples (cols. 231-250) which contain a CF₂O or OCF₂ bridging group contain such group bridging to at least a two-ring structure with a phenylene ring to the bridging group and then one or two cyclohexylene rings on the left side, i.e., the compounds beginning with HB or H2B in Andou's terminology.

Andou, thus, provides no specific embodiment or specific evidence to suggest that the reference inventors were in possession of a composition meeting the recitations of the instant

claims. A mere broad generic disclosure without any specific direction as to the specific element(s) necessary to provide an anticipation is not an anticipatory disclosure. In other words, such a broad generic disclosure does not "describe" an embodiment therein in accordance with 35 U.S.C. § 102. See In re Kollman et al, 201 USPQ 193 (CCPA 1979). If such a reference were anticipatory, it would not be possible to prove nonobviousness for selection inventions within a generic disclosure. Such is not the state of the law.

In the absence of an adequately specific disclosure, Andou cannot anticipate the instant claims and the rejection under 35 U.S.C. § 102 should be withdrawn.

The Rejections Under 35 U.S.C. § 103

The rejections of claims 4 and 15 under 35 U.S.C. § 103, as being obvious over Andou in view, respectively, of Pausch (U.S. Patent No. 6,027,665) or Leenhouts (U.S. Patent No. 5,883,686) are respectfully traversed.

The discussion of Andou above is incorporated herein by reference. The Pausch and Leenhouts references are relied upon to support features of applicants' dependent claims. Applicants' submit, as discussed below, that Andou does not render obvious the general elements of claim 1 and, thus, its combination with Pausch or Leenhouts does not render obvious claims 4 or 15. Pausch and Leenhouts were not relied upon to suggest the features of applicants' claim 1 and do not suggest modifying Andou to meet such features.

As established, Andou provides a very broad generic formula encompassing 217 recited subgeneric formula recited by Andou and countless actual compounds. Andou's disclosure, in a very broad generic sense, encompasses the compositions of applicants' claim 1. However, applicants' claims make up only a very small portion of that broad generic disclosure, as evidenced by the fact that only one of the 217 subgeneric formulae of Andou overlaps with a minor portion of some of the compounds used in applicants'

compositions and that only one of the 691 compounds listed by Andou is a compound used in applicants' compositions.

Applicants' urge that Andou's broad disclosure does not render obvious applicants' invention. In re Jones, 21 USPQ 2d 1941 (Fed. Cir. 1992), made clear that it is not correct that "... regardless of how broad, a disclosure of a chemical genus renders obvious any species which happens to fall within it." Instead, the disclosure must be considered as a whole as to whether it fairly suggests the claimed invention to one of ordinary skill in the art. Further, see In re Baird, 29 USPQ2d 1550 (Fed. Cir. 1994), whose facts are quite similar to the case at hand. In Baird the claim in question was directed to a composition of a biphenol A polyester with an aliphatic carboxylic acid. The reference disclosed the polymeric esterification product of a dicarboxylic acid and a diphenol of a certain generic formula. The generic formula contained several variables each having a range of possibilities such that the generic formula encompassed a very large number of compounds, i.e. allegedly about 100 million, one of which was bisphenol A. There was nothing in the reference to suggest the specific selection of variables necessary to arrive at bisphenol A and the Court stated that the reference actually indicated a preference for compounds distinct from bisphenol A. Therefore, the Court concluded that the reference did not fairly suggest the ester from bisphenol A and, thus, did not render the claimed invention prima facie obvious.

As in Baird, here the generic formula of Andou encompasses a countless number of compounds and the relevant compounds of applicants' compositions overlap only a very small portion of Andou's scope. Further, contrary to Andou's specific teachings directing one of ordinary skill in the art towards compositions containing compound meeting applicants' claim 1, all of the Andou compositions which contain CF₂O or OCF₂ bridged compounds contain them in a manner not meeting applicants' claim 1, i.e., they always contain a phenylene group on the direct left hand side of the bridging group. Thus, as in

Baird, the examples direct away from, rather than toward applicants' compositions. In such circumstance, it is urged that Andou fails to fairly suggest the claimed invention to one of ordinary skill in the art, despite its generic disclosure.


Certain dependent claims are even further removed from the Andou disclosure. For example, the compositions of claims 10 and 22, containing a compound wherein Z^{12} is OCF_2 , in addition to being remote from Andou's broad generic disclosure, are also not even within the above-discussed single subgeneric formula (I-12) of Andou or within Andou's formula 369 379 or 380. Thus, the remoteness of Andou from fairly suggesting such claims is even more clear. 370

For all of the above reasons, it is urged that the two rejections under 35 U.S.C. § 103 should be withdrawn.

It is submitted that the claims are in condition for allowance. However, the Examiner is kindly invited to contact the undersigned to discuss any unresolved matters.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,


John A. Sopp, Reg. No. 33,103
Attorney for Applicants

MILLEN, WHITE, ZELANO &
BRANIGAN, P.C.
Arlington Courthouse Plaza 1, Suite 1400
2200 Clarendon Boulevard
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410

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